Journal of Community Medicine and Primary Health Care. 27 (2) 41-50

JOURNAL OF
COMMUNITY HEALTH
& PRIMARY HEALTH CARE

Promoting universal financial protection: a study assessing the effects of knowledge and perception towards enrolment in health insurance schemes among clienteles using tertiary health services.

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KEYWORDS
Health insurance
Knowledge
Perception
Enrolment
Nigeria

ABSTRACT

Objective:
To assess the evidence of the effects of knowledge and perception of health insurance on the willingness to enrol and utilize health insurance among clienteles using tertiary health services.

Method: This was a cross-sectional descriptive study. The instrument was a pre-tested, semi-structured self administered questionnaire. Descriptive statistics as well as chi-square test and regression analysis were done to show statistically significant associations.

Results:
The findings reveal that majority of the respondents had heard about health insurance at 275(78.6%), a significant number at 265(75.7%) had the right understanding of what it is; with the electronic and print media accounting for the major source of knowledge of health insurance at 85(24.3%) and 117(33.4%) respectively. Notwithstanding, most of the respondents 202(57.7%) felt that their current knowledge of health insurance is still very limited of such scheme(s) and as such affects their interest in enrolling in a scheme. Statistically significant association between the level of knowledge and the willingness to enrol in an insurance scheme feeling that they need more information on health insurance and the willingness to enrol in a health insurance scheme was shown (X2= 6.689, df= 1, p-value= 0.01). Accordingly, most respondents were willing to enrol and utilize the benefits of different types of health insurance services.

Conclusion:
The findings from this study has brought to the fore the relationship(s) between knowledge and perception of clients using health services and the effect(s) on their desire and willingness to participate in health insurance schemes. Still, there are concerns that necessitate wide spread advocacy for health insurance.

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BACKGROUND

Strengthening health systems, improving healthcare delivery outcomes, as well as finding answers to the competing alternatives of healthcare financing are critical issues that continue to bother health policy makers. Irrespective of the option, the choice of health care financing should mobilize resources for health and provide financial protection at the same time.[1] Nevertheless; there are concerns that in many developing countries such as Nigeria, it remains progressively difficult to sustain satisfactory levels of financing healthcare delivery. For instance, macroeconomic estimates of healthcare budgeting in Nigeria shows that only about 5% of national gross domestic product (GDP) is allocated to health annually, amounting to a meager 80US dollars per capita on healthcare.[2] Despite this, no definite answer exists to the question as to how much should be spent on health (in absolute money terms or as a share of gross income). Notwithstanding, spending for health in the country varies by type, with people mostly paying for healthcare through out-of-pocket spending (OOPS).[3] This differs from what prevails in developed countries were various arrangements have been made for health insurance.[4] Sadly, there is

evidence revealing that the common payment mechanism (OOPS) in Nigeria can be 'catastrophic' in the sense of leading to or aggravating poverty by crowding-out other essential 'goods' such as food, housing and clothing.[5-7]

Against this backdrop, health policy and decision makers established a range of different measures, such as user-fees, health insurance and other cost-sharing arrangements.[7,8] Notably, the health financing policy in Nigeria provides a framework for implementing health insurance schemes within the context of the national health insurance scheme (NHIS), so as to expand cover in health care delivery for the formal and informal sectors as a strategy towards universal health coverage.[9] Of note is that, in the country, various health insurance schemes do exist: social health insurance, private health insurance and community-based financing schemes.

Although, these schemes are still rudimentary in the country, they are set-up to mobilize resources for healthcare and at the same time provide financial risk protection.[5,6] There is evidence that health insurance programmes have had positive impacts on healthcare financing by improving access to services and reducing OOPS.[10,11] However, there are also indications that members of the population due to their poor knowledge and perception of health insurance often do not benefit from such programmes.[12]

The argument therefore is that, although the national health insurance policy has been ratified with a view to its scaling-up, the dearth of information, knowledge and perception of health insurance may constraint the scaling-up and utilization of health insurance packages in the country. Accordingly, the ongoing large scale reforms of Nigeria's healthcare system necessitates periodic monitoring and evaluation to ensure achievement of the initial objectives aimed at sustainable health financing and universal health coverage.

Therefore, to provide evidence for health policy, this research then assessed the effects knowledge and perception of health insurance on the willingness to enrol and utilize health insurance among clienteles using tertiary health services. Specifically, the research question addressed in this research was: what is the effect(s) of knowledge and perception of health insurance on the willingness to enrol and utilize health insurance schemes among clients utilizing tertiary health services by using a tertiary health facility in Delta State, Nigeria. Consequently, it is hoped that the findings from this research should inform health policy and planning and constitute an important part of the base on which decisions on healthcare financing can be taken in the country and beyound.

METHODS

Given the need to provide empirical evidence for policy, a descriptive cross-sectional study was conducted between the months of March to June, 2014. The study population consisted of all out-patients in the general outpatient department (GOPD) in the Delta State University Teaching hospital Oghara; a tertiary health facility in a semi-urban community in Ethiope West Local Government Area of Delta State.

Using the average clinical attendance rates per month, sample size estimation was determined using the formula, for estimating minimum sample size for descriptive studies when studying proportions with entire population size <10 000.[13] The calculated clinic attendance rate for the GOPD was 780per month and a sample size of 257 was obtained but increased to 370 to allow for increased precision. A simple random sampling technique was undertaken to sample 370 respondents from the GOPD of the hospital, however only 350

questionnaires were returned and analysed.

The study instrument was a pre-tested, semi-structured self-administered questionnaire. The questionnaire schedule which elicited information in respect of the demographic characteristics of the respondents.

Respondents' knowledge and perception of health insurance were accessed. The data generated were analysed using statistical package for social sciences (SPSS version 16.0). Descriptive statistics as well as chi-square test and regression analysis were used to assess the associations between variables, and the associations were considered significant at $p< 0.05$.

Ethical approval

Ethical approval was obtained from the Health Research Ethics Committee of the Delta State University Teaching Hospital, Oghara and informed written (and or verbal) consent was obtained from the participants.

RESULTS

The results of the study were obtained from 350 clienteles visiting the general outpatient department of Delta State University Teaching Hospital.

Table I: Demographic characteristics of respondents

Characteristics	Frequency	Percentage (%)
Sex		
Male	186	53.1
Female	164	46.9
Total	350	100
Marital Status		
Single	172	49.1
Married	170	48.6
Divorced	1	0.3
co-habiting	4	1.1
Others	3	0.9
Total	350	100.0
Mean Age of respondents (37.43)		**Standard Deviation (14.942)**

Demographic characteristics of respondents:

Findings from the study showed that the average age of the respondents was 37.43 years with a standard deviation of 14.942. The majority of them were males 186 (53.1%) with a male: female ratio of 1.3:1 and the majority of the respondents were single 172 (49.1 %), with 48.6% being married and approximately 2.3% constituting divorced, co-habiting and widows.

Findings of their occupational status revealed that a significant proportion of the respondents were unemployed at 8.0%, and of those employed, those in the private sector were the majority at 29.4%, public sector 25.7% and self-employed 36.9% respectively.

More so, the findings showed that most respondents had attained one form of education with tertiary education being the highest at 194(55.4%) and only 4.0% who had no formal education. systemic infection, dehydration, heart failure and vitamin and mineral deficiency.

Dehydration is the major complication of diarrhea and this is common to all types of diarrhea. The lost water and salts should be replaced fast and if the lost water is more than 10%, death may occur.[3] Therefore there is need to provide adequate fluids and ensure continuous feeding which is appropriate

Knowledge and perception of health insurance:

On the knowledge of health insurance, the findings as demonstrated in Table 3 showed that majority of the respondents had heard about health insurance at 275(78.6%), a significant number at 265(75.7%) had the right understanding of what it is; with the electronic and print media accounting for the major source of knowledge of health insurance at 85(24.3%) and 117(33.4%) respectively. Additionally, most respondent knew more about social health insurance scheme (NHIS) when compared with other forms of health insurance sche

Table II: Occupation and level of education of respondents

Characteristics	Frequency	Percent (%)
Occupation		
Self employed	8	19.1
Public sector	90	27.2
Private sector	103	23.5
Unemployed	129	29.6
Total	350	100.0
Level of Education		
none	14	4.0
Primary	45	12.9
Secondary	97	27.7
Tertiary	194	55.4
Total	350	100.0

IIes/programmes in the country and are of the view that health insurance is important. That is 219 (93.2%) of the respondents were of the opinion that they knew that health insurance was a better method of paying for their health bills than out-of-pocket spending.

This is because it was an advanced form of payment made and reduces the problem of having to pay for health care at the point of services as against out-of-pocket spending or user-fees. Infact, personal spending still accounts for over 70% of health care expenditures among respondents but they believe that this still doesn't cover for all of their healthcare needs.

However, the study did not assess knowledge of the components of the various insurance schemes such as the packages in the NHIS, notwithstanding it was shown that a significant proportion of the respondents at 203(86.4) believe that anybody, including the employed and unemployed should benefit from health insurance programmes especially with the rising cost of tertiary health services. Notably, the study showed that most of the respondents had a good knowledge of the basics of health insurance and its relevance to healthcare delivery. Overall, 265 (75.7%) had good knowledge of health insurance based on the objectives used to assess the respondents.

Additionally, a regression analysis model for the demographic characteristics (independent variables) and the level of knowledge score (dependent variable) showed that of the various characteristics that could have affected the high knowledge score of health insurance, the age (β= .025, SE = .010, p = .016) was the main contribution to the reason for the high knowledge of health insurance by clienteles using tertiary health care services. Furthermore, as illustrated in table 5, the opinions of the respondents showed that they had diverse perceptions of health insurance as a financing mechanism for health.

It was revealed that 165 (47.1%) i.e most of the respondents were of the opinion that health insurance would work but they 'fear' that it may be short lived (i.e will not be a permanent programme) if started in settings in the country, 34 (9.8%) were indifferent while the others had other 'negative' perceptions of health insurance. Although, the study showed that most of the respondents had good knowledge of health insurance, however, a very significant proportion of the respondents' i.e 202(57.7%) had it that their current knowledge of health insurance is still very limited in terms being an enrolee in any of such scheme.

They were of the opinion that practical knowledge (experience) of such a scheme in the past or present had affected them from enrolling or benefiting from such schemes that are available for tertiary health services since there is the general opinion that it is a better option to finance their health needs as against the norm (user-fees or out-of-pocket spending), with most of the respondents feeling that everybody should be entitled to one form of insurance irrespective of socio-economic background or any other differences.

Effects on enrolling into health insurance schemes:

The study demonstrated the effects of

Table III: Distribution of respondents by knowledge of health insurance

Variables	Responses(s)	
	Frequency	Percentage
Heard about health insurance ?		
Yes	275	78.6%
No	75	21.4 %
Indifferent	Nil	–
What do you think health insurance is ?		
It is taking financial precautions	146	41.7%
It is about saving money to pay for future health bills	60	17.1%
It is about government making health care cheaper	144	41.1%
Indifferent	Nil	–
First learnt about health insurance		
Newspapers/tabloids	85	24.3%
Television/Radio	117	33.4%
Health Workers	74	21.1%
Family & Friends	49	14.0%
Teachers/Religious Leaders	17	4.8%
Indifferent	8	2.3%
What type of health insurance do you know?		
NHIS	227	64.9%
Community health insurance	29	8.3%
Private health insurance	35	10.0%
Don't know of any	56	16.0%
Indifferent	3	0.9%
Do you think health insurance is important ?		
Yes	**302**	**86.3%**
No	**32**	**9.1%**
Indifferent	16	4.6%
Do you know where you can enrol in an insurance scheme		
Yes	13#72	39.1%
No	209	59.7%
Overall knowledge score		
Yes	265	75.7%
No	85	24.3%

knowledge and perception towards clientele's desire to enrol and utilize health insurance as a financing mechanism for tertiary health services. Although enrolment into insurance schemes is still rudimentary in this part of the country, the growing knowledge and changing perception impacts positively on the demand for insurance services.

As 78.6% knew (had heard of) either social health insurance (NHIS), community based health insurance or private health insurance, a very significant proportion of the respondents i.e 311 (88.9%) were willing to enrol and utilize the benefits of different types of health insurance services that would meet their health bills for tertiary health care. More so, the perception by most of the respondents that they needed more information based on poor practical knowledge of health insurance strengthens their quest to enrol in any such scheme. There was a statistically significant association between the level of knowledge score and the willingness to enrol in a health insurance scheme ($X^2 = 6.689$, df=1, p-value = 0.01).

Importantly, most of the respondents (64.9%) prefer to enrol in a social health insurance

Table IV: Demographic Characteristics and the Level of Knowledge score (Binary Logistic Regression)

Variables	β	S.E	Wald	df	Sig	Exp(β)	95.0% C.I for Exp(β)	
							Lower	Upper
Age	.025	.010	5.839	1	.016	1.026	1.005	1.047
Sex	.448	.268	2.792	1	.095	1.565	.925	2.648
Marital Status	.122	.235	.270	1	.603	1.130	.713	1.789
Occupation	.266	.151	3.129	1	.077	1.305	.972	1.754
Religion	.315	.260	1.464	1	.226	1.370	.823	2.283
Level Of Education	-.023	.156	.022	1	.883	.977	.719	1.327
Paid Income	.326	.284	1.318	1	.251	1.386	.794	2.418
Constant	-4.381	1.167	14.087	1	.000	.013		

Table V: Distribution of respondents by perception of health insurance:

Variables (N=235)	Frequency (%)
Feeling towards health insurance	
-It is a waste of money	39 (11.1%)
-It cannot work properly in Nigeria	52 (14.9%)
-It is a government problem	62 (17.1%)
-fear that any of such programmes will be short lived	165 (47.1%)
-Indifferent	34 (9.8%)
Should only those who can afford benefit from health insurance schemes	
-Yes	77 (22.0%)
-No	257 (73.4%)
-Indifferent	16 (4.6%)
Do you feel poorly informed about health insurance	
-Yes	202 (57.7%)
-No	126 (36.0 %)
-Indifferent	22 (6.3%)
Do you think that your knowledge of health insurance has affected your enrolling or benefiting from such schemes	
-Yes	284 (81.1%)
-No	66 (18.9%)

Table 6: Chi-Square analysis of the level of knowledge and the willingness to participate in an insurance scheme

	Would you like to enrol in a scheme And get the full benefits ?		
	Yes	**No**	**Total**
Good	242	23	265
Poor	69	16	85
Total	311	39	350

$X^2 = 6.689$ df= 1 pvalue= - 0.01

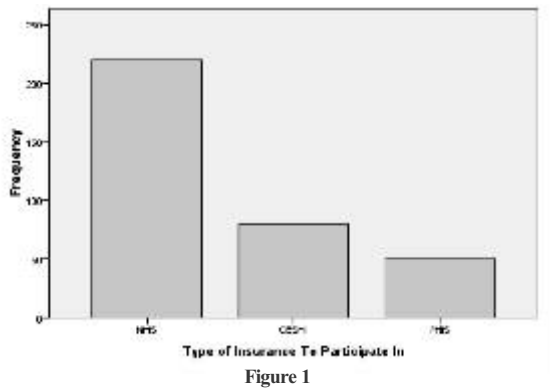

Figure 1

Key:
NHIS- National Health Insurance Scheme (social health insurance programme).
CBSHI- Community Based Social Health Insurance
PHIS- Private Health Insurance Schemes

scheme (the national health insurance scheme, specifically) and these are willing to contribute up to 10% of their income as deductions towards health insurance.

Furthermore, the high level of awareness of health insurance and the perception for more 'exposure' to such schemes by the study showed that both knowledge and perception has an effect on individuals' acceptance and willingness to enrol and utilize the packages of insurance programmes if made available for healthcare.

DISCUSSION

The design of policy reforms in the health care sector requires reliable evidence of the impacts of improvements in access and quality of care, and the extent to which these improvements can be financed by scaling-up health insurance in Nigeria. Notably, the purchasing power of a health seeking client is essential to accessing health care services particularly tertiary health care which to a large extent depends on one's ability to pay for services at the point of service. Nevertheless, paying for health care at the point of service or out-of pocket spending (OOPS) remains retrogressive.[14] Reason for this is that OOPS decreases demand for healthcare, 'scales-up' inequitable access to quality care, and exposes households to the financial risk of expensive illness at the time of need. This has necessitated reforms in Nigeria's healthcare system, needing periodic evaluation to ensure achievement of the initial objectives aimed at sustainable health financing and universal health coverage.[15] Therefore, this paper's main contribution is in its attempt to provide evidence of the effects of knowledge and perception of clientele utilizing tertiary health services on their willingness to enrol in health insurance schemes. In brief, the findings identified in this study provide evidence on the relationship between knowledge

and perception on clientele willingness to enrol in health insurance schemes. Although the evidence is limited, nevertheless, several key themes were identified in this study.

Firstly, the findings from this study has brought to the fore the fact that knowledge and perception do have a relationship with the willingness to enrol and benefit from health insurance packages. The findings revealed that most of the respondents had a good knowledge of health insurance from our assessment, with 275 (78.6%) having heard of it and a significant number at 265(75.7%) had the right understanding of what it is. The evidence showed that electronic and print media accounted for the major source of knowledge of health insurance at 85(24.3%) and 117(33.4%) respectively. It could be asserted that besides the current advocacy for improving healthcare financing through insurance, the 'rising tide' of and information technology culture contributes considerably to the knowledge gain of the insurance programmes in Nigeria. There is evidence which substantiates this.[16,17] However, a higher proportion of the respondents at 209(59.7) had it that they do not know where to enrol for an insurance package. This strengthens the argument that insurance programmes in the country are still rudimentary especially outside the formal sector. This contrasts what is obtainable in neighbouring Ghana where insurance coverage is up to 70% of the population.[18] Interestingly, in Ghana, the perception of insurance programmes at national and sub-national levels have strengthened the scaling-up of the health insurance reforms.[18]

Additionally, the study revealed varying perceptions of the respondents' feelings towards such programmes; the general feeling was that of 'uncertainty'. As an example from Ebonyi state, the formal sector social health insurance programme (FSSHIP) (a strategy of the NHIS) was not implemented, civil servants and other public workers who were enrolees of the government scheme, reported negative reports about the FSSHIP (which they considered more valuable than media adverts employed by the NHIS) in a number of interviews conducted.[19] In this instance, other would-be enrolees (such as civil servants) who were willing to participate in health insurance programmes didn't due to concerns at sub-national (state) policy levels. Of note is that at the onset of insurance policy reforms in Nigeria, a lot of awareness campaign was carried by the government and health maintenance organizations (HMOs) to sensitize interest in joining health insurance schemes. The challenge so far is inconsistency in commitment towards this campaign. Nonetheless, this study showed that there were positive views that will propel clients to seek insurance where available, suggesting the need for more robust advocacies at all levels to promote insurance and as such strengthening universal health coverage.

Secondly, there is also the concern that in spite of the evidence of the increasing knowledge of health insurance by clients seeking tertiary healthcare, the gains of such programmes may not be fully benefitted if made available. The study revealed that only a few are employed in the formal sector (27.2%) leaving the majority in the informal sector. It is possible that many would-be enrolees may never get the opportunity to benefit as such. This stems from the fact that the FSSHIP still remains the major strategy employed by the government to scale-up health insurance with benefactors as government employees. While there are reports of private and community based health insurance schemes (CBHIs) in the country, however evidence reveals that less than 1% of Nigerians are in any such schemes.[20] This study showed that besides the NHIS, respondents were willing to enrol in other schemes such as the CBHIs and private health insurance schemes if made available. However there is still the

concern that unemployment and underemployment may cause the inability to pay despite the willingness to participate.[21]

More so, the systemic challenges facing the insurance schemes may pose as problems to policy implementation. Notably, there are issues of inequity in health insurance, particularly is with CBHIs. Studies have shown that in spite of the willingness to pay for health insurance (CBHIs) which now serve as an alternative to the FSSHIP for the largely unskilled, unemployed, rural and semi-urban dwellers, there remain problems of adverse selection, poor community ratings and issues with solvency. [22] These are not quite the same for CBHIs such as in Tanzania; parts of Cameroon and the Masisi hospital pre-payment scheme in D.R. Congo.[23] Internal reforms and systematic remodeling of schemes that are in-keeping with the local context are needful. There is also the need for financing arrangements through subsidies and donor support for CBHIs in the country.[24] This calls for governments and international donors to support subsidies and continued research in the area of health financing, including community financing. A critical example which will come to bear in the region will be the continued implementation of the guidelines on conducting case studies on micro-health insurance of the International Labour Organization STEP programme.[25]

CONCLUSION

As progress is being made to improve on healthcare delivery, the findings from this study has brought to the fore the fact that knowledge and perception of health insurance among clients using health services impacts on their desire and willingness to participate in health insurance schemes. The print and electronic media continues to be the most important source of getting information about such schemes, however, the knowledge gains and improving perception about health insurance will not be beneficial to the health system and health care delivery as there are there are concerns with the designs and implementation of insurance schemes. Nigeria particularly needs to take steps to expand membership outside the formal sector, as has been more widely adopted in Ghana.[28] Heavy burdens of poverty, disease, remote rural settings and variability in insurance provision across the country makes it almost improbable to achieve universal coverage through insurance schemes in the near future. This necessitates wide spread advocacy at all levels of government, subsidies (cross-subsidizations), increased community participation and leveraging on available external support to expand health insurance in order to achieve universal health coverage through health insurance schemes.

Acknowledgements: The authors are grateful to God Almighty for his inspiration and the suggestions of the anonymous reviewers.

Ethical issues: Ethical approval was given by the health research and ethics committee of Delta State University Teaching Hospital, Oghara Delta State.

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